

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-39. (canceled)

40. (Previously presented) A purified polypeptide comprising the amino acid sequence of SEQ ID NO:5.

41. (Previously presented) The purified polypeptide of claim 40 wherein said polypeptide is recombinantly produced.

42-44. (Canceled)

45. (Currently amended) A purified polypeptide comprising ~~amino acids 750-977 of~~ the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25.

46-53. (Canceled)

54. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a recombinant, purified polypeptide, which recombinant polypeptide comprises ~~amino acids 750-977 of~~ the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25.

55-56. (Canceled)

57. (Currently Amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said first polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second, purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of

Helicobacter pylori heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

58. (Canceled)

59. (Previously Presented) The immunogenic composition of claim 57 wherein said second polypeptide comprises at least fifteen contiguous amino acids of the *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

60-61. (Canceled)

62. (Currently Amended) A method of preparing an immunogenic composition comprising bringing into association:

- (1) an immunologically effective amount of a purified polypeptide, which polypeptide comprises ~~amino acids 750-977 of the amino acid sequence of SEQ ID NO:5~~ SEQ ID NO:25, and
- (2) a pharmaceutically acceptable carrier.

63. (Previously Presented) A method of preparing an immunogenic composition comprising:

bringing into association (1) an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and (2) a pharmaceutically acceptable carrier, and

adding an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

64-67. (Canceled)

68. (Previously presented) The purified polypeptide of claim 45, wherein said polypeptide is recombinantly produced.

69. (Canceled)

70. (Currently Amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second, purified polypeptide, wherein said second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin (CT) protein, wherein said CT protein comprises the amino acid sequence of SEQ ID NO:3.

71-77. (Canceled)

78. (Previously Presented) The method of claim 62 wherein said purified polypeptide is a recombinant polypeptide.

79. (Canceled)

80. (Previously Presented) The immunogenic composition of claim 70 wherein said second polypeptide comprises at least fifteen contiguous amino acids of the *Helicobacter pylori* CT protein, wherein said CT protein comprises the amino acid sequence of SEQ ID NO:3.

81. (Currently Amended) An isolated, purified immunogenic polypeptide comprising a *Helicobacter pylori* cytotoxin associated immunodominant antigen (CAI) comprising ~~amino acids 750-977 of the amino acid sequence of SEQ ID NO:5~~ SEQ ID NO:25.

82-87. (Canceled)

88. (Previously presented) The polypeptide of claim 81, wherein said polypeptide is a recombinant polypeptide.

89-122. (Canceled)

123. (Currently Amended) An isolated, purified immunogenic polypeptide encoded by a polynucleotide sequence comprising nucleotides ~~2782-3466~~ 7-691 of the nucleotide sequence of ~~SEQ ID NO:4~~ SEQ ID NO:26.

124-126. (Canceled)

127. (Previously presented) An isolated immunogenic polypeptide encoded by the polynucleotide sequence of SEQ ID NO:4.

128-139. (Canceled)

140. (Previously Presented) The method of claim 63 wherein said first purified polypeptide is a recombinant polypeptide.

141. (Currently Amended) An immunogenic composition comprising an immunologically effective amount of a purified polypeptide comprising ~~amino acids 750-977~~ of the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25.

142. (Currently Amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, wherein said first polypeptide comprises ~~amino acids 750-977~~ of the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

143. (Previously Presented) The immunogenic composition of claim 142 wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

144. (Previously Presented) The immunogenic composition of claim 142 wherein said heat shock protein is a recombinant polypeptide.

145. (Previously Presented) The immunogenic composition of claim 142 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

146. (Previously Presented) The immunogenic composition of claim 142 wherein said first polypeptide is a recombinant polypeptide.

147. (Currently Amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, wherein said first polypeptide comprises ~~amino acids 750-977~~ of the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin protein, wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

148. (Previously Presented) The immunogenic composition of claim 147 wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

149. (Previously Presented) The immunogenic composition of claim 147 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

150. (Previously Presented) The immunogenic composition of claim 147 wherein said cytotoxin protein is a recombinant polypeptide.

151. (Previously Presented) The immunogenic composition of claim 147 wherein said first polypeptide is a recombinant polypeptide.

152. (Previously Presented) The immunogenic composition of claim 54 wherein said recombinant polypeptide comprises the amino acid sequence of SEQ ID NO:5.

153. (Previously Presented) The method of claim 62 wherein said polypeptide comprises the amino acid sequence of SEQ ID NO:5.

154. (Currently Amended) A method of preparing an immunogenic composition comprising bringing into association (1) an immunologically effective amount of a purified first polypeptide, which first polypeptide comprises ~~amino acids 750-977~~ of the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25 and (2) an immunologically effective amount of a second polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin protein, wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

155. (Previously Presented) The method of claim 154 wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

156. (Previously Presented) The method of claim 154 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

157. (Previously Presented) The method of claim 154 wherein said cytotoxin protein is a recombinant polypeptide.

158. (Previously Presented) The method of claim 154 wherein said first polypeptide is a recombinant polypeptide.

159. (Currently Amended) A method of preparing an immunogenic composition comprising bringing into association (1) an immunologically effective amount of a purified first polypeptide, which first polypeptide comprises ~~amino acids 750-977~~ of the amino acid sequence of ~~SEQ ID NO:5~~ SEQ ID NO:25 and (2) an immunologically effective amount of a second polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

160. (Previously Presented) The method of claim 159 wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

161. (Previously Presented) The method of claim 159 wherein said heat shock protein is a recombinant polypeptide.

162. (Previously Presented) The method of claim 159 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

163. (Previously Presented) The method of claim 159 wherein said first polypeptide is a recombinant polypeptide.

164. (Previously Presented) The immunogenic composition of claim 57 wherein said first polypeptide is a recombinant polypeptide.

165. (Previously Presented) The immunogenic composition of claim 57 wherein said second polypeptide is a recombinant polypeptide.

166. (Currently Amended) ~~The immunogenic composition of claim 57~~ An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said first polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second polypeptide, wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:6.

167. (Previously Presented) The immunogenic composition of claim 70 wherein said first polypeptide is a recombinant polypeptide.

168. (Previously Presented) The immunogenic composition of claim 70 wherein said second polypeptide is a recombinant polypeptide.

169. (Currently Amended) ~~The immunogenic composition of claim 70~~ An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective

amount of a second polypeptide, wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:3.

170. – 171. (Canceled)

172. (Previously Presented) A method of preparing an immunogenic composition comprising: bringing into association an immunologically effective amount of a first purified polypeptide, which polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

173. (Previously Presented) The method of claim 172 wherein said first polypeptide is a recombinant polypeptide.

174. (Previously Presented) The method of claim 172 wherein said second polypeptide is a recombinant polypeptide.

175. (Previously Presented) The method of claim 172 wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:6.

176. (Previously Presented) A method of preparing an immunogenic composition comprising: bringing into association an immunologically effective amount of a first purified polypeptide, which polypeptide comprises at least 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin protein, wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

177. (Previously Presented) The method of claim 176 wherein said first polypeptide is a recombinant polypeptide.

178. (Previously Presented) The method of claim 176 wherein said second polypeptide is a recombinant polypeptide.

179. (Previously Presented) The method of claim 176 wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:3.

180. (Previously Presented) The method of claim 63 wherein said second purified polypeptide is a recombinant polypeptide.